ST-S170

SERVICE MANUAL

AEP Model
UK Model

SPECIFICATIONS

Tuner

Circuit system: FM stereo, FM/AM superheterodyne tuner
Quartz-locked PLL digital synthesizer system

FM tuner

Frequency range: 87.5–108 MHz
Antenna terminals: 75 ohms unbalanced
300 ohms balanced
European and U.K. models: 75 ohms unbalanced
Intermediate frequency: 10.7 MHz
Sensitivity (at 46 dB quieting)
18.0 dBf, 4.4 μV (mono)
40.0 dBf, 49 μV (stereo)
European and U.K. models:
18.0 dBf, 2.2 μV (mono)
40.0 dBf, 24.5 μV (stereo)
Sensitivity (at 50 dB quieting)
22.1 dBf, 7 μV (mono)
42.1 dBf, 70 μV (stereo)
Usable sensitivity (IHF): 19.5 dBf (5 μV)
Signal-to-noise ratio (at 40 kHz deviation)
74 dB (mono)
69 dB (stereo)
Signal-to-noise ratio (at 75 kHz deviation)
80 dB (mono)
75 dB (stereo)
Harmonic distortion: 0.3% (mono), 0.5% (stereo) (at 1 kHz)
Separation: 40 dB (at 1 kHz)
Frequency response
30 Hz–15 kHz $^{+0.5}_{-2.0}$ dB
European and U.K. models:
40 Hz–12.5 kHz ±0.5 dB
Selectivity: West German and Italian models:
65 dB (at 300 kHz)
European and U.K. models:
60 dB (at 300 kHz)
80 dB (at 400 kHz)
Other models:
65 dB (at 400 kHz)
Capture ratio: 1.0 dB
AM suppression ratio: 65 dB
Image response ratio: 70 dB
IF response ratio: 70 dB
Spurious response ratio: 80 dB
Muting threshold: 30 dBf
Automatic tuning threshold: 30 dBf
Output: 775 mV, 4.7 kohms (at 75 kHz deviation)
European and U.K. models: 410 mV, 4.7 kohms (at 40 kHz deviation)

AM tuner

Frequency range: Italian model:
MW: 522–1,611 kHz
LW: 144–288 kHz
Other European and U.K. models:
MW: 531–1,602 kHz
LW: 153–279 kHz
Canadian model:
AM: 530–1,710 kHz at 10 kHz step
(531–1,710 kHz at 9 kHz step)
Models for other countries:
AM: 531–1,602 kHz at 9 kHz step
(530–1,710 kHz at 10 kHz step)
Antenna: AM loop antenna
External antenna terminal
Intermediate frequency: 450 kHz
Usable sensitivity (with AM loop antenna)
300 μV/m (999 kHz)
1 mV/m (216 kHz)
Signal-to-noise ratio
54 dB (50 mV/m) (999 kHz)
50 dB (50 mV/m) (216 kHz)
Harmonic distortion: 0.5% (50 mV/m, 400 Hz)
Selectivity: 32 dB

General

Power requirements
U.K. model: 240 V AC (or 220–230 V AC adjustable by authorized Sony personnel), 50/60 Hz
European model: 220–230 V AC (or 240 AC adjustable by authorized Sony personnel), 50/60 Hz
Canadian model: 120 V AC, 60 Hz
Models for other countries: 110–120 V or 220–240 V AC adjustable, 50/60 Hz
Power consumption: 10 W
Dimensions: Approx. 430 × 85 × 295 mm (w/h/d) (17 × 3⅜ × 11⅝ inches)
Weight: Approx. 2.8 kg (6 lb 3 oz)
Accessories supplied
Remote control cord (1)
Connecting cord (1)
FM antenna (1) (Except West Germany model)
AM loop antenna (1)

Design and specifications subject to change without notice.

FM STEREO/FM-AM TUNER

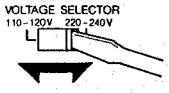
SONY®

MICROFILM

PRECAUTIONS

On safety

- Before connecting the unit to the power source, check that the operating voltage of your unit is the same as the local power line voltage

Where purchased	Operating voltage
Canada	120 V AC, 60 Hz
United Kingdom	240 V AC, 50/60 Hz
Continental Europe	220–230 V AC, 50/60 Hz (240 V AC, adjustable by authorized Sony personnel)
Other countries	110–120 or 220–240 V AC, 50/60 Hz (Adjustable using the voltage selector at the rear) 

- Should any solid object or liquid fall into the unit, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Do not pull the cord itself.

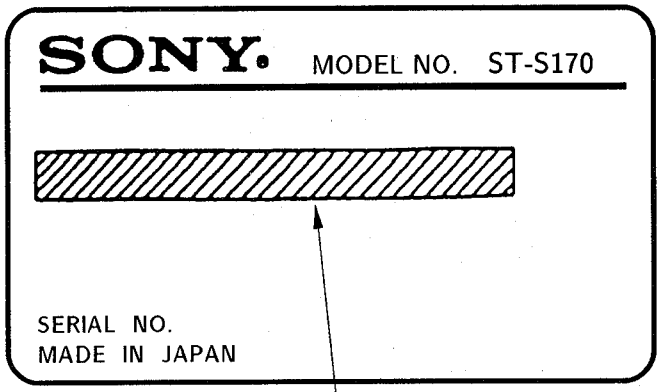
TABLE OF CONTENTS

Specifications 1
Model Identification 2
User's Instruction 3
Electrical Adjustments 4
Diagrams
- Printed Wiring Boards 6
- Schematic Diagram 9
- Pin functions of microprocessors 13

Exploded Views 14
Electircal Parts List 15

MODEL IDENTIFICATION

- Specification Label -



UK Model : AC 240V ~ 50/60Hz

AEP IT, GERMAN

Model: AC 220 - 230V 50/60Hz 10W

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

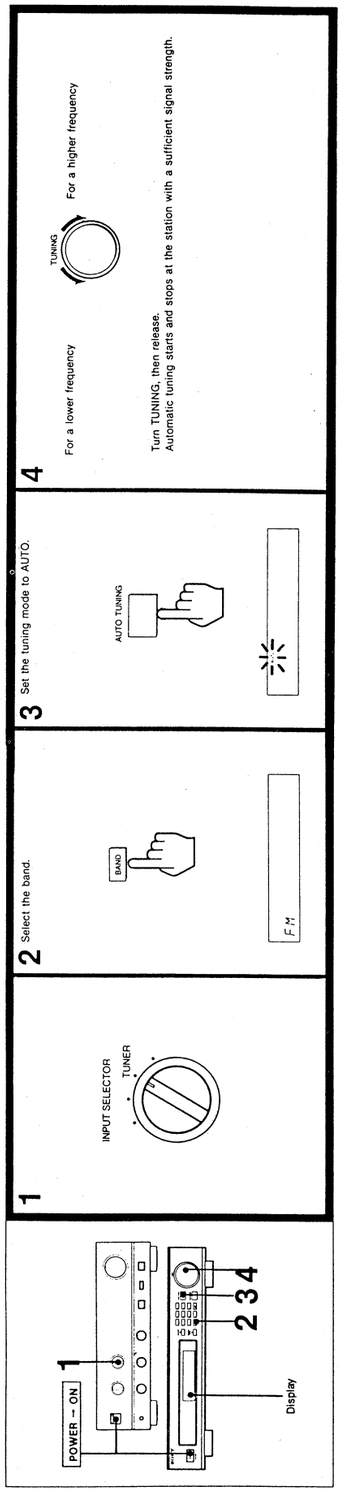
ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉ-MATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTION-NEMENT.

NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
GENERAL

This section is extracted from instruction manual.



Receiving Broadcasts

Tuning in Automatically

Before reception, be sure to connect the AM and FM antenna.

To receive other stations
When the received station is not the one you want, turn TUNING again.

Indications in the display window
- The STEREO indication appears when an FM stereo program of sufficient signal strength is received.
- The SIGNAL meter indicates the signal strength of a station tuned in.

To change the AM tuning interval (except European and U.K. models)
The AM tuning interval is preset at the factory to 9 kHz or 10 kHz.
To use the unit where the frequency allocation system is based on the other interval, make the following adjustments.
1 Turn on the power and tune in any AM station.
2 Turn off the power.
3 Press POWER while pressing the "0"PRESET button to set to 10 kHz.
(To set to 9 kHz, press "9" instead.)
When the interval is changed, all preset stations which you have memorized will be erased. After changing the interval, be sure to preset the stations again.

SECTION 2
ELECTRICAL ADJUSTMENTS

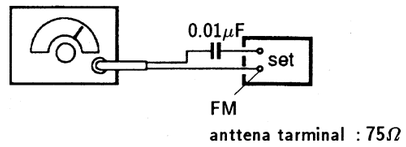
2-1. FM SECTION

FM NULL Adjustment

Setting :

BAND switch : FM

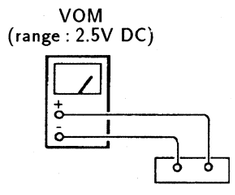
Procedure :



Carrier frequency : 98MHz
Output level : 1mV (60dB)
Modulation : 1kHz, 40kHz deviation (100%)

1. Tune the set to 98MHz.
2. Adjust T21 for a 0V reading on the VOM.

Note : When the ceramic fillter is replaced, adjustments should be made.

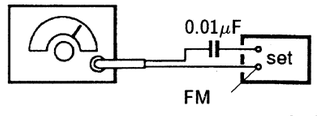


STEREO Indication Lighting Level Adjustment

Setting :

STEREO/MUTE switch : OFF
BAND switch : FM

Procedure :



Carrier frequency : 98MHz
Output level : 17.9μV (25dB)
Mode : Stereo
Modulation :
Audio (1kHz) : 16.25kHz deviation (40.625%)
Pilot (19kHz) : 7.5kHz deviation (18.75%)
Sub-channel (38kHz) : 16.25kHz deviation (40.625%)

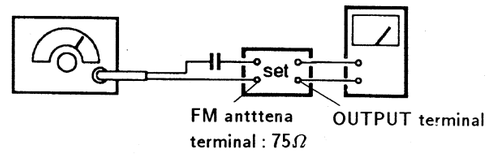
1. Tune the set to 98MHz.
2. Adjust RV24 so that the STERO indicator goes on.

FM Stereo Separation Adjustment

Setting :

STEREO/MUTE switch : ON (STEREO)
BAND switch : FM

Procedure :



Carrier frequency : 98MHz
Output level : 1mV (60dB)
Mode : Stereo
Modulation :
Audio (1kHz) : 16.25kHz deviation (40.625%)
Pilot (19kHz) : 7.5kHz deviation (18.75%)
Sub-channel (38kHz) : 16.25kHz deviation (40.625%)

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV21 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV21 for minimum reading.

L-CH Stereo separation : Ⓐ - Ⓑ
R-CH Stereo separation : Ⓒ - Ⓓ

The separations of both channels should be equal.

2-2. AM SEC
SIGNAL LEVEL
Setting :
BAND switc
Procedure :
VO
(range : 2
Carrier frequency
Output level : 94
Modulation : 400
1. Tune the set
2. Adjust RV2
indicator lig

2-3. ADJUST

FM NULL Adjust

FM Stereo Separ
Adjustment

on is extracted from manual.

SECTION 2
ELECTRICAL ADJUSTMENTS

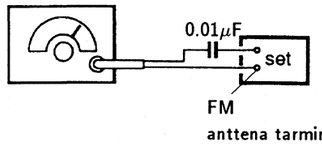
2-1. FM SECTION

FM NULL Adjustment

Setting :

BAND switch : FM

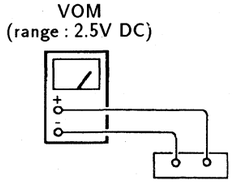
Procedure :



Carrier frequency : 98MHz
Output level : 1mV (60dB)
Modulation : 1kHz, 40kHz deviation (100%)

1. Tune the set to 98MHz.
2. Adjust T21 for a 0V reading on the VOM.

Note : When the ceramic fillter is replaced, adjustments should be made.

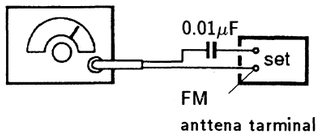


STEREO Indication Lighting Level Adjustment

Setting :

STEREO/MUTE switch : OFF
BAND switch : FM

Procedure :



Carrier frequency : 98MHz
Output level : 17.9μV (25dB)
Mode : Stereo
Modulation :
Audio (1kHz) : 16.25kHz deviation (40.625%)
Pilot (19kHz) : 7.5kHz deviation (18.75%)
Sub-channel (38kHz) : 16.25kHz deviation (40.625%)

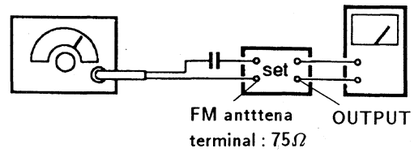
1. Tune the set to 98MHz.
2. Adjust RV24 so that the STERO indicator goes on.

FM Stereo Separation Adjustment

Setting :

STEREO/MUTE switch : ON (STEREO)
BAND switch : FM

Procedure :



Carrier frequency : 98MHz
Output level : 1mV (60dB)
Mode : Stereo
Modulation :
Audio (1kHz) : 16.25kHz deviation (40.625%)
Pilot (19kHz) : 7.5kHz deviation (18.75%)
Sub-channel (38kHz) : 16.25kHz deviation (40.625%)

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV21 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV21 for minimum reading.

L-CH Stereo separation : Ⓐ - Ⓑ
R-CH Stereo separation : Ⓒ - Ⓓ

The separations of both channels should be equal.

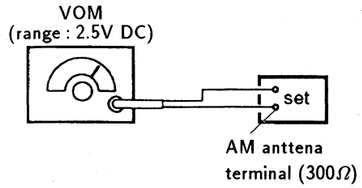
2-2. AM SECTION

SIGNAL LEVEL METER Lighting Level Adjustment

Setting :

BAND switch : LW

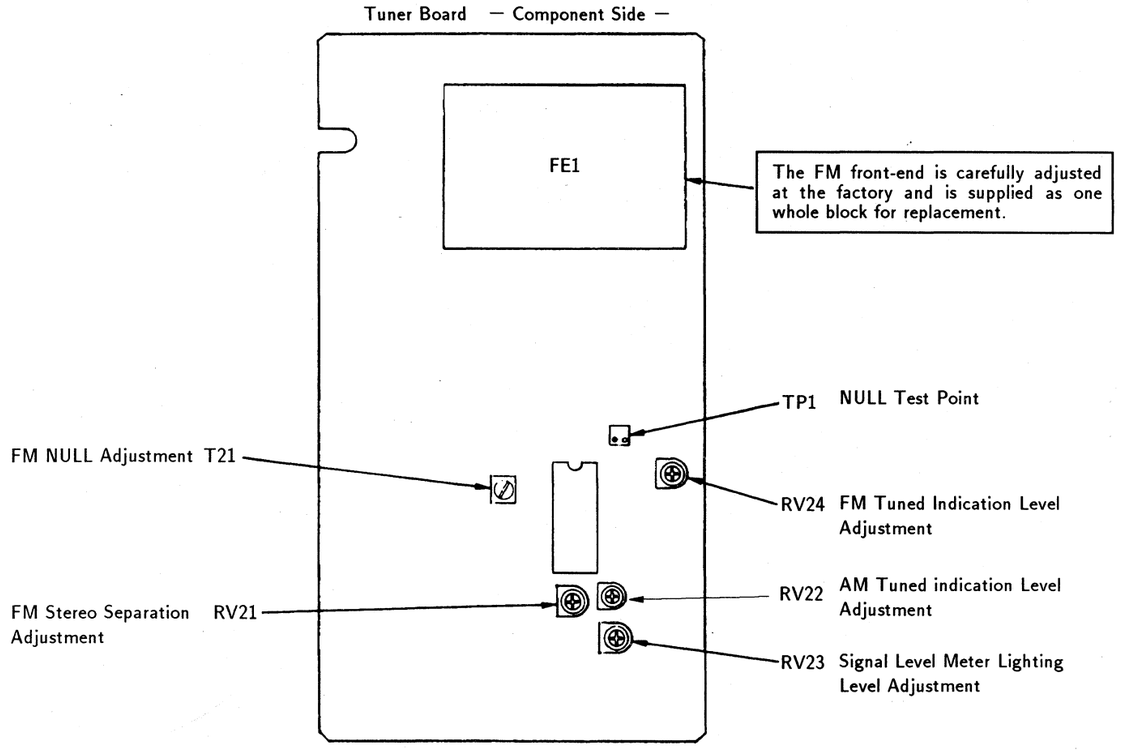
Procedure :



Carrier frequency : 216kHz
Output level : 94 dBμ/m
Modulation : 400Hz, 30% modulation

1. Tune the set to 216kHz.
2. Adjust RV23 until the scale-5 on SIGNAL METER indicator lights up.

2-3. ADJUSTMENT PARTS LOCATION


Tuner Board — Component Side —
FE1
The FM front-end is carefully adjusted at the factory and is supplied as one whole block for replacement.
TP1 NULL Test Point
FM NULL Adjustment T21
RV24 FM Tuned Indication Level Adjustment
RV22 AM Tuned indication Level Adjustment
FM Stereo Separation Adjustment RV21
RV23 Signal Level Meter Lighting Level Adjustment

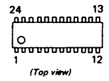
you have memorized will be erased. After changing the interval, be sure to preset the stations again.

SECTION 3
DIAGRAMS

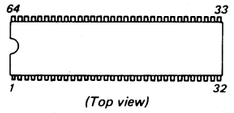
3-1. SEMICONDUCTOR LEAD LAYOUTS

DTA114ES
DTC114ES
2SC2669

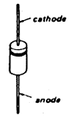
LC7218



TMP47C670N

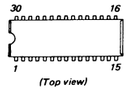


RD30ESB3
1SS120
10E2N



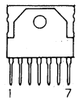
2SC2603
2SC3112

LA1851N



2SK246GR3

LA5667



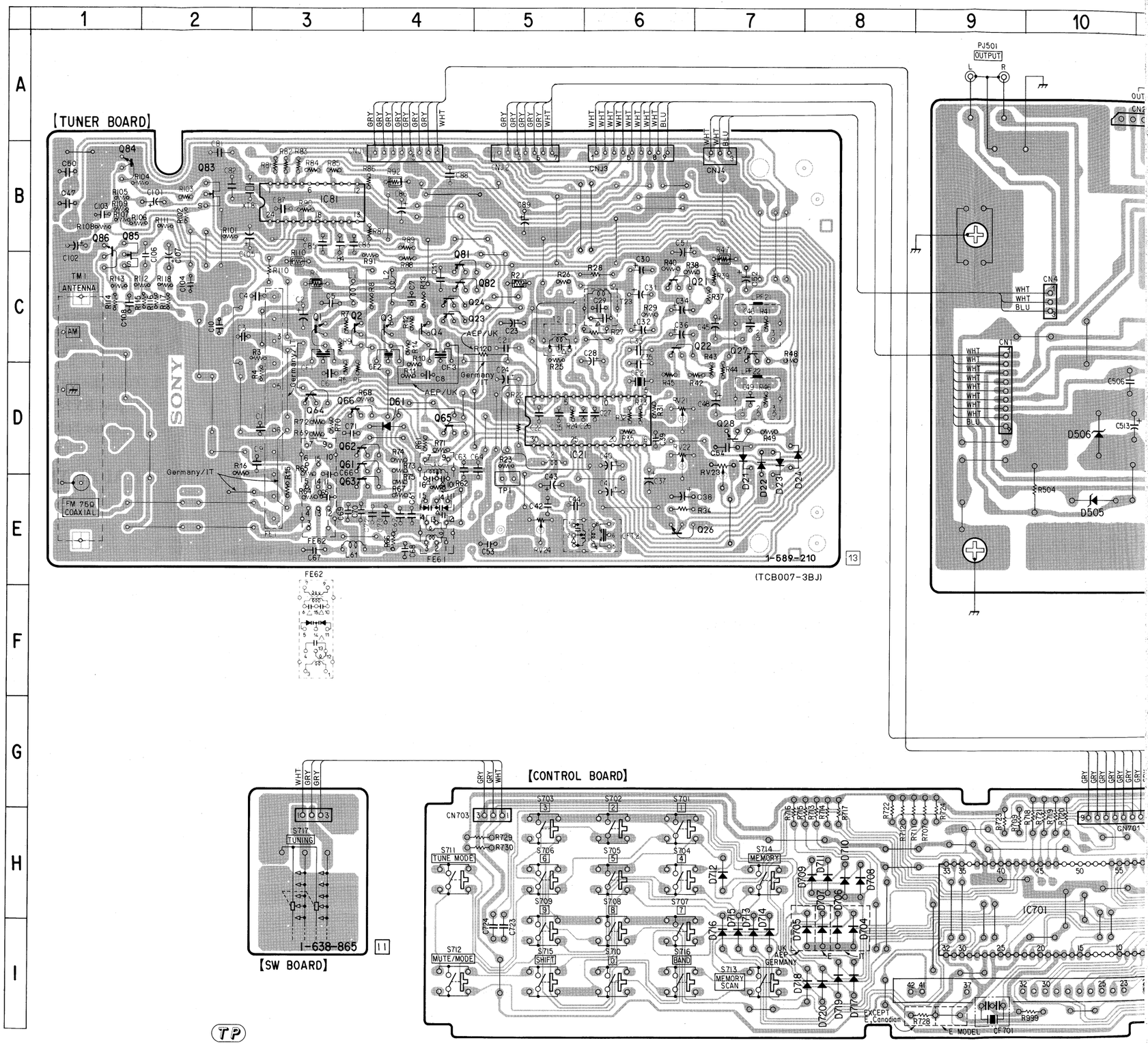
● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D21	D-7	Q1	C-3
D22	D-7	Q2	C-3
D23	D-7	Q3	C-4
D24	D-7	Q4	C-4
D61	D-4	Q21	C-6
D501	C-12	Q22	C-6
D502	D-12	Q23	C-4
D503	D-11	Q24	C-4
D504	D-11	Q26	E-6
D505	E-10	Q27	C-7
D506	D-10	Q28	D-7
D507	B-11	Q61	D-3
D701	H-15	Q62	D-3
D702	I-15	Q63	E-3
D703	H-14	Q64	D-3
D704	I-8	Q65	D-4
D705	I-8	Q66	D-3
D706	H-8	Q81	C-4
D708	H-8	Q82	C-4
D709	H-8	Q83	B-2
D710	H-8	Q84	B-1
D711	H-8	Q85	B-1
D712	H-7	Q86	B-1
D713	I-7		
D714	I-7		
D715	I-7		
D716	I-7		
D717	I-8		
D718	I-8		
D719	I-8		
D720	I-8		
D721	H-14		
IC21	D-5		
IC81	B-3		
IC501	C-11		
IC701	H-10		
IC702	H-15		

Note :

- ○— : parts extracted from the component side.
- ⊡ indicates side identified with part number.

3-2. PRINTED WIRING BOARDS



3	4	5	6	7	8	9	10	11	12	13	14	15	16

【POWER SUPPLY BOARD】

PJ501 OUTPUT L R

CONTROL S OUT IN

CN2 CN3

R506

D507

VS1 VOLTAGE SELECTOR 120V 230V E MODEL

Canadian, UK

CN502

S901 POWER ON OFF

AEP, IT GERMANY

CN4 WHT WHT BLU

IC501

C501

D501

PT501 POWER TRANSFORMER

AEP, UK GERMANY IT, E

Canadian

C551

CN501 BLU BRN

AC IN PC501

CN1 WHT WHT WHT WHT WHT WHT WHT WHT BLU

R502

C506 C507 C508 C509 C510 C511

D502

C502

D506 C513 C512 D503 D504 C504

C503

R503

R504

D505

Canadian R551

1-638-866

11

CN1 GRY GRY GRY GRY GRY GRY WHT

CN2 GRY GRY GRY GRY GRY WHT

CN3 WHT WHT WHT WHT WHT WHT WHT WHT BLU

CN4 WHT WHT BLU

IC81 IC21 Q81 Q82 Q24 Q23 Q1 Q2 Q3 Q4 Q64 Q66 Q65 Q62 Q61 Q63 Q22 Q27 Q28 Q26 D61 D21 D22 D23 D24

AEP/UK Germany E

TP1

1-589-210

13

(TCB007-3BJ)

FE62

FE61

【SW BOARD】

WHT GRY GRY

S717 TUNING

R729 R730

1-638-865

11

【CONTROL BOARD】

GRY GRY WHT

CN703

S703 S702 S701 S706 S705 S704 S709 S708 S707 S715 S710 S716 S711 TUNE MODE S712 MUTE/MODE S714 MEMORY S713 MEMORY SCAN SHIFT BAND

D712 D715 D713 D714 D716 D705 D706 D707 D708 D709 D710 D711 D704 D717 D718 D719 D720

UK AEP GERMANY E

EXCEPT E, Canadian

R728 E MODEL CF701 R999

GRY GRY GRY GRY GRY GRY GRY WHT

CN701

IC701

FL701

GRY GRY GRY GRY WHT

CN702

D721 D703 D701 D702

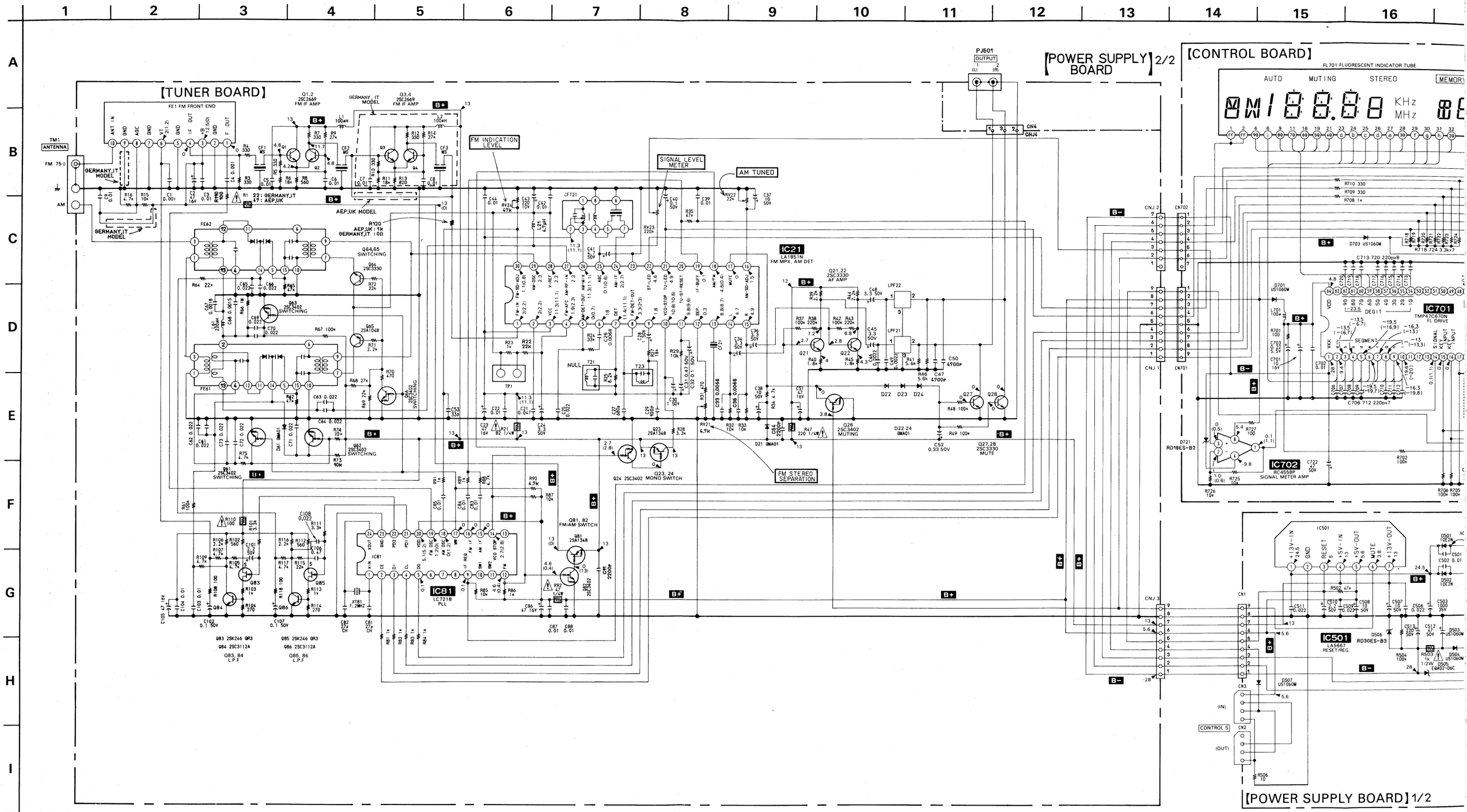
IC702

C722 C721 C715 C716 C718 C719 C712 C720 C717 C713 C714 C704 C705 C703 C701 C702

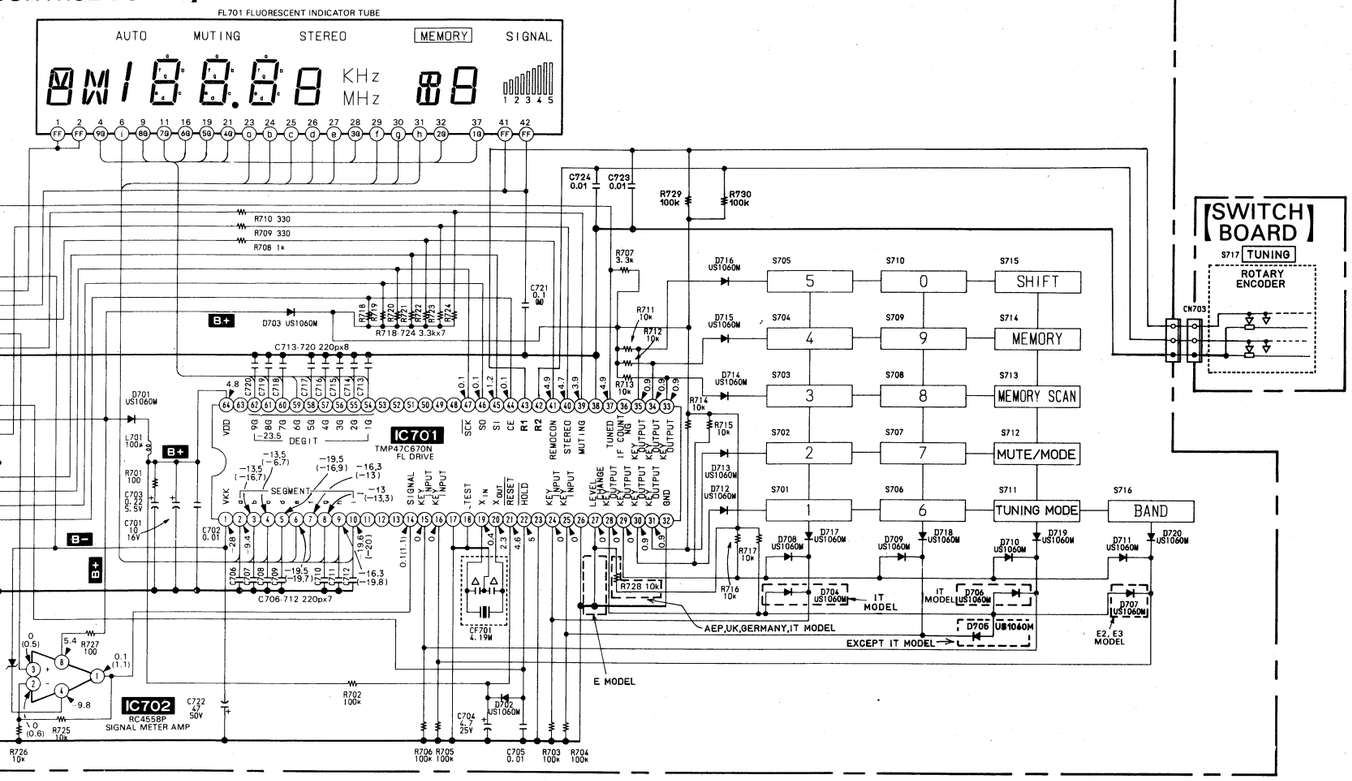
R726 R725 R727 L701 R706 R705 R704 R702 R701 R703

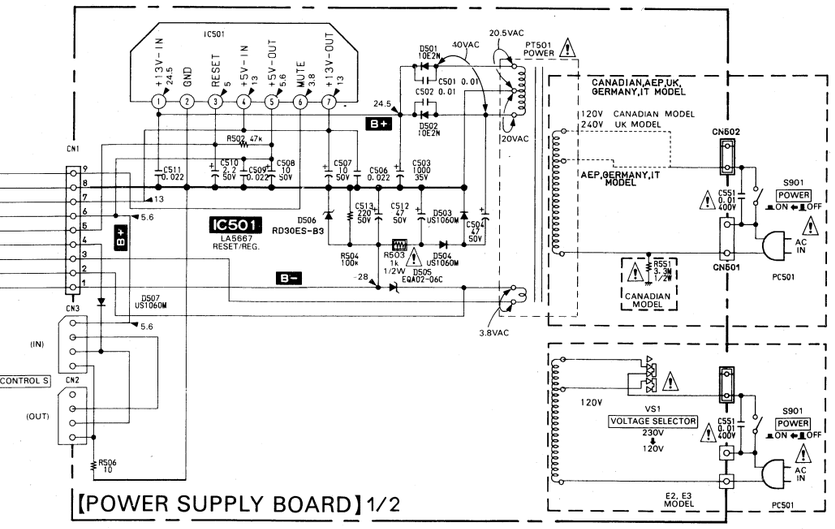
I-638-864

11


【TUNER BOARD】
【POWER SUPPLY】2/2 BOARD
【CONTROL BOARD】
【POWER SUPPLY BOARD】1/2
FE1 FM FRONT-END
ANTENNA
FM 75Ω
AM
GERMANY,IT MODEL
AEP,UK MODEL
Q1,2 2SC2669 FM IF AMP
Q3,4 2SC2669 FM IF AMP
FM INDICATION LEVEL
SIGNAL LEVEL METER
AM TUNED
IC21 LA1851N FM MPX, AM DET
Q21,22 2SC3330 AF AMP
Q26 2SC3402 MUTING
Q27,28 2SC3330 MUTE
D22-24 GMA01
D21 GMA01
FM STEREO SEPARATION
Q23, 24 2SA1348
Q24 2SC3402 MONO SWITCH
Q81, 82 FM/AM SWITCH
IC81 LC7218 PLL
XT81 7.2MHz
Q83 2SK246 GR3
Q84 2SC3112A
Q83, 84 L.P.F
Q85 2SK246 GR3
Q86 2SC3112A
Q85, 86 L.P.F
Q64,65 SWITCHING
Q63 2SC3402 SWITCHING
Q65 2SA1548
Q62 2SC3402 SWITCHING
Q61 2SC3402 SWITCHING
Q66 2SC3402 SWITCHING
PJ601
OUTPUT
CN4
CNJ4
CNJ 2
CNJ 1
CNJ 3
CN702
CN701
FL701 FLUORESCENT INDICATOR TUBE
AUTO
MUTING
STEREO
MEMORY
KHz
MHz
D703 US1060M
D701 US1060M
D707 US1060M
IC701 TMP47C670N FL DRIVE
DIGIT
SEGMENT
IC702 RC4558P SIGNAL METER AMP
D721 RD18ES-B2
IC501 LA5667 RESET/REG.
D506 RD30ES-B3
D501 10E2N
D502 10E2N
D505 EQA07-06C
CN1
CN3
CN2
CONTROL S
(IN)
(OUT)
SIGNAL INPUT
KEY INPUT
B+
B-

CONTROL BOARD】





Note :

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- B+ : B+ Line
- B− : B− Line
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
  ( ) : AM
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM

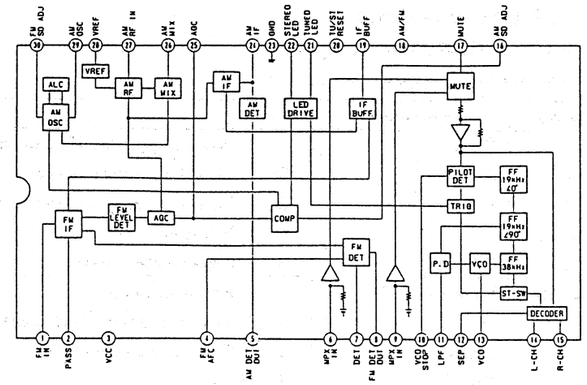
[Service Note]

INDICATOR TUBE ALL LIGHT-UP MODE

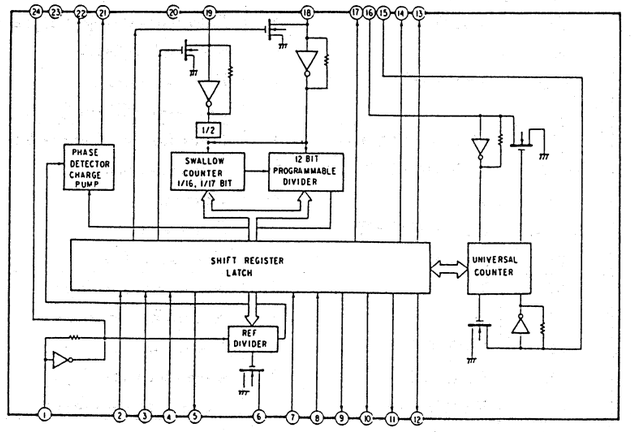
When turning POWER switch on while pressing PRESET 1 and AUTO TUNING KEYS simultaneously, all the segments of FL701 will light.

• IC BLOCK DIAGRAM

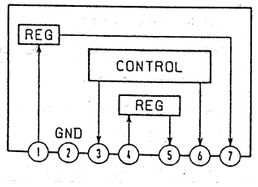
IC21 LA1851N



IC81 LC7218



IC501 LA5667



● IC701 SYSTEM CONTROLLER (TMP47C670N-1247)

TMP47C670N-1247 contains the following function 4 bit signal chip microprocessor.

- FL tube drive circuit
- 4 bit A/D convertion input
- 14 bit A/D convention output

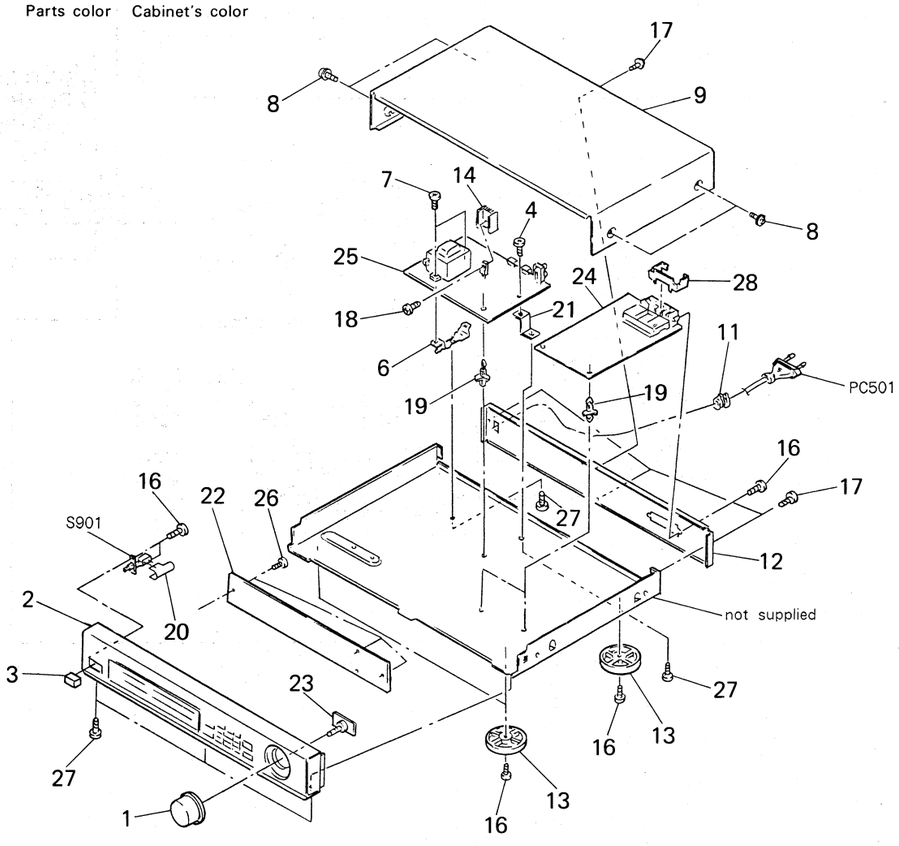
Pin No.	Pin Name	I/ O	Description
1	VKK	—	Power supply for FL tube drive. (Built-in)
2 - 10	a - i	O	FL tube segment output.
11	—	O	FL tube segment output. (Not used)
12, 13	—	—	Not used.
14	SIGNAL	I	Signal meter input.
15, 16	KEY INPUT	I	Key scan input.
17	—	I	Key scan input. (Not used)
18	TEST	I	Test terminal. (GND)
19	XIN	I	X'tal oscillator.
20	XOUT	O	
21	$\overline{\text{RESET}}$	I	Reset signal input.
22	$\overline{\text{HOLD}}$	I	Hold request/reject signal input.
23	—	—	Not used. (GND)
24, 25	KEY INPUT	I	Key scan input.
26	—	—	Not used. (Ground)
27	LEVEL CHANGE	I	Input for signal meter level selector.
28 - 31	KEY OUTPUT	O	Key scan output.
32	Vss	—	Ground.
33 - 35	KEY OUTPUT	O	Key scan output.
36	IF COUNT		Not used. (Open)
37	TUNED	I	Auto stop level input.
38	—	—	Not used. (Ground)
39	MUTING	O	Muting output.
40	STEREO	I	stereo indicator input.
41	REMOCON	I	Remote control input.
42, 43	R2, R1	I	Rotary encoder input.
44	CE	O	Chip enable output.
45	SI	I	Serial data input.
46	SO	O	serial data output.
47	$\overline{\text{SCK}}$	O	serial data transfer clock output.
48 - 53	—	—	Not used. (Open)
54 - 62	1G - 9G	O	digit output for FL tube.
63	—	—	Not used. (Open)
64	VDD	—	Power supply voltage. (+5V)

SECTION 4
EXPLODED VIEWS

NOTE:

- −XX, −X mean standardized parts, so they may have some differences from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Color indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE)....(RED)
  ↑ Parts color ↑ Cabinet's color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.



Ref. No.	Part No.	Description	Remark
1	4-944-125-01	KNOB (DIA. 44)	
2	X-4941-669-1	PANEL ASSY, FRONT	
3	3-354-912-01	KNOB, POWER	
4	4-886-821-11	SCREW, S TIGHT, +PTTWH 3X6	
6	* 4-917-044-01	BRACKET (PT)	
7	7-682-550-04	SCREW +BVTT 3X12 (S)	
8	3-704-366-01	SCREW (CASE) (M3X8)	
9	4-923-457-01	CASE	
11	* 3-703-244-00	BUSHING (2104), CORD	
12	4-944-121-11	PANEL, BACK (AEP)	
12	4-944-121-21	PANEL, BACK (GERMANY)	
12	4-944-121-31	PANEL, BACK (UK)	
12	4-944-121-41	PANEL, BACK (IT)	
13	X-3304-938-2	FOOT ASSY	
14	* 4-363-146-31	HEAT SINK, V.OUT	
16	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
16	3-704-242-01	SCREW, TERMINAL BVTP CLAW (GERMANY, IT)	
17	7-682-548-09	SCREW +BVTT 3X8 (S)	
18	7-682-548-04	SCREW +BVTT 3X8 (S)	
19	* 3-346-265-11	HOLDER, PC BOARD	
20	3-575-524-00	COVER, POWER SWITCH	
21	* 3-332-563-01	BRACKET (P)	
22	* A-4341-891-A	CONTROL BOARD, COMPLETE (AEP, UK)	
22	* A-4341-895-A	CONTROL BOARD, COMPLETE (GERMANY)	
22	* A-4341-896-A	CONTROL BOARD, COMPLETE (IT)	
23	* 1-638-865-11	SWITCH BOARD	
24	* A-4345-364-A	TUNER BOARD, COMPLETE (AEP, UK)	
24	* A-4345-366-A	TUNER BOARD, COMPLETE (GERMANY, IT)	
25	* 1-638-866-11	POWER BOARD	
26	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
27	7-682-547-09	SCREW +BVTT 3X6 (S)	
28	* 4-924-988-11	PLATE(ST), GROUND	
CP501	⚠1-575-651-11	CORD, POWER (AEP, IT, GERMANY)	
CP501	⚠1-575-652-11	CORD, POWER (UK)	
S901	⚠1-554-920-21	SWITCH, POWER (POWER)	

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- —XX, —X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE : Metal Oxide-film resistor
  F : nonflammable
- Items marked "＊" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example :
  uA.... : μA...., uPA.... : μPA....
  uPB.... : μPB...., uPC.... : μPC....
  uPD.... : μPD....
- CAPACITORS
  uF : μF
- COILS
  uH : μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description			Remark
	＊ A-4341-891-A	CONTROL BOARD, COMPLETE (AEP, UK)			
		**********			
	＊ A-4341-895-A	CONTROL BOARD, COMPLETE (GERMANY)			
		**********			
	＊ A-4341-896-A	CONTROL BOARD, COMPLETE (IT)			
		**********			
	＊ 1-638-865-11	SWITCH BOARD			
	＊ 1-638-866-11	POWER SUPPLY BOARD			
	＊ 4-363-146-31	HEAT SINK, V. OUT			
	＊ 4-925-125-01	HOLDER, FL TUBE			
	7-682-548-04	SCREW +BVTT 3X8 (S)			
		< CAPACITOR >			
C501	1-101-004-00	CERAMIC	0.01uF		50V
C502	1-101-004-00	CERAMIC	0.01uF		50V
C503	1-126-105-11	ELECT	1000uF	20%	35V
C504	1-124-910-11	ELECT	47uF	20%	50V
C506	1-101-005-00	CERAMIC	22000PF		50V
C507	1-124-907-11	ELECT	10uF	20%	50V
C508	1-124-907-11	ELECT	10uF	20%	50V
C509	1-101-005-00	CERAMIC	22000PF		50V
C510	1-124-925-11	ELECT	2.2uF	20%	100V
C511	1-101-005-00	CERAMIC	22000PF		50V
C512	1-124-910-11	ELECT	47uF	20%	50V
C513	1-124-911-11	ELECT	220uF	20%	50V
C551	⚠1-161-744-00	CERAMIC	0.01uF		400V
C701	1-126-157-11	ELECT	10uF	20%	16V
C702	1-161-379-00	CERAMIC	0.01uF	20%	25V
C703	1-125-486-11	DUBLE LAYERS	0.22F		5.5V
C703	1-125-486-11	DUBLE LAYERS	0.22F		5.5V
C704	1-126-163-11	ELECT	4.7uF	20%	50V
C705	1-161-379-00	CERAMIC	0.01uF	20%	25V
C706	1-162-286-31	CERAMIC	220PF	10%	50V
C707	1-162-286-31	CERAMIC	220PF	10%	50V

Ref.No.	Part No.	Description			Remark
C708	1-162-286-31	CERAMIC	220PF	10%	50V
C709	1-162-286-31	CERAMIC	220PF	10%	50V
C710	1-162-286-31	CERAMIC	220PF	10%	50V
C711	1-162-286-31	CERAMIC	220PF	10%	50V
C712	1-162-286-31	CERAMIC	220PF	10%	50V
C713	1-162-286-31	CERAMIC	220PF	10%	50V
C714	1-162-286-31	CERAMIC	220PF	10%	50V
C715	1-162-286-31	CERAMIC	220PF	10%	50V
C716	1-162-286-31	CERAMIC	220PF	10%	50V
C717	1-162-286-31	CERAMIC	220PF	10%	50V
C718	1-162-286-31	CERAMIC	220PF	10%	50V
C719	1-162-286-31	CERAMIC	220PF	10%	50V
C720	1-162-286-31	CERAMIC	220PF	10%	50V
C721	1-136-165-00	FILM	0.1uF	5%	50V
C722	1-124-910-11	ELECT	47uF	20%	50V
C723	1-101-004-00	CERAMIC	0.01uF		50V
C724	1-101-004-00	CERAMIC	0.01uF		50V
		< VIBRATOR >			
CF701	1-577-359-21	VIBRATOR, CERAMIC			
		< CONNECTOR >			
CN1	＊ 1-568-284-11	SOCKET, CONNECTOR 9P			
CN2	1-564-980-11	PIN, CONNECTOR 4P (CONTROL S OUT)			
CN3	1-564-980-11	PIN, CONNECTOR 4P (CONTROL S IN)			
CN4	1-568-269-11	SOCKET, CONNECTOR 3P			
CN501	＊ 1-564-321-00	PIN, CONNECTOR 2P			
CN502	＊ 1-564-321-00	PIN, CONNECTOR 2P			

Ref.No.	Part No.	Description	Remark
		< DIODE >	
D501	8-719-200-77	DIODE 10E2N	
D502	8-719-200-77	DIODE 10E2N	
D503	8-719-912-20	DIODE 1SS120	
D504	8-719-912-20	DIODE 1SS120	
D505	8-719-912-81	DIODE EQA02-06C	
D506	8-719-110-73	DIODE RD30ESB3	
D507	8-719-912-20	DIODE 1SS120	
D701	8-719-912-20	DIODE 1SS120	
D702	8-719-912-20	DIODE 1SS120	
D703	8-719-912-20	DIODE 1SS120	
D704	8-719-912-20	DIODE 1SS120 (IT)	
D705	8-719-912-20	DIODE 1SS120 (EXCEPT IT)	
D706	8-719-912-20	DIODE 1SS120 (IT)	
D708	8-719-912-20	DIODE 1SS120	
D709	8-719-912-20	DIODE 1SS120	
D710	8-719-912-20	DIODE 1SS120	
D711	8-719-912-20	DIODE 1SS120	
D712	8-719-912-20	DIODE 1SS120	
D713	8-719-912-20	DIODE 1SS120	
D714	8-719-912-20	DIODE 1SS120	
D715	8-719-912-20	DIODE 1SS120	
D716	8-719-912-20	DIODE 1SS120	
D717	8-719-912-20	DIODE 1SS120	
D718	8-719-912-20	DIODE 1SS120	
D719	8-719-912-20	DIODE 1SS120	
D720	8-719-912-20	DIODE 1SS120	
D721	8-719-110-49	DIODE RD18ES-B2	
		< FILTER >	
FL701	1-519-513-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC501	8-759-820-09	IC LA5667	
IC701	8-759-246-23	IC TMP47C670N-SOX3014	
IC702	8-759-945-58	IC RC4558P	
		< COIL >	
L701	1-410-521-11	INDUCTOR 100uH	
		< JACK >	
PJ501	1-565-352-11	JACK, PIN 2P (OUTPUT)	

Ref.No.	Part No.	Description			Remark
		< TRANSFORMER >			
PT501	⚠1-449-400-11	TRANSFORMER, POWER			
		< RESISTOR >			
R502	1-249-437-11	CARBON	47K	5%	1/4W
R503	1-247-752-11	CARBON	1K	5%	1/2W F
R504	1-249-441-11	CARBON	100K	5%	1/4W
R506	1-249-393-11	CARBON	10	5%	1/4W
R701	1-249-405-11	CARBON	100	5%	1/4W
R702	1-249-441-11	CARBON	100K	5%	1/4W
R703	1-249-441-11	CARBON	100K	5%	1/4W
R704	1-249-441-11	CARBON	100K	5%	1/4W
R705	1-249-441-11	CARBON	100K	5%	1/4W
R706	1-249-441-11	CARBON	100K	5%	1/4W
R707	1-249-423-11	CARBON	3.3K	5%	1/4W
R708	1-249-417-11	CARBON	1K	5%	1/4W
R709	1-249-411-11	CARBON	330	5%	1/4W
R710	1-249-411-11	CARBON	330	5%	1/4W
R711	1-249-429-11	CARBON	10K	5%	1/4W
R712	1-249-429-11	CARBON	10K	5%	1/4W
R713	1-249-429-11	CARBON	10K	5%	1/4W
R714	1-249-429-11	CARBON	10K	5%	1/4W
R715	1-249-429-11	CARBON	10K	5%	1/4W
R716	1-249-429-11	CARBON	10K	5%	1/4W
R717	1-249-429-11	CARBON	10K	5%	1/4W
R718	1-249-423-11	CARBON	3.3K	5%	1/4W
R719	1-249-423-11	CARBON	3.3K	5%	1/4W
R720	1-249-423-11	CARBON	3.3K	5%	1/4W
R721	1-249-423-11	CARBON	3.3K	5%	1/4W
R722	1-249-423-11	CARBON	3.3K	5%	1/4W
R723	1-249-423-11	CARBON	3.3K	5%	1/4W
R724	1-249-423-11	CARBON	3.3K	5%	1/4W
R725	1-249-429-11	CARBON	10K	5%	1/4W
R726	1-249-429-11	CARBON	10K	5%	1/4W
R727	1-249-405-11	CARBON	100	5%	1/4W
R728	1-249-429-11	CARBON	10K	5%	1/4W
R729	1-249-441-11	CARBON	100K	5%	1/4W
R730	1-249-441-11	CARBON	100K	5%	1/4W
		< SWITCH >			
S701	1-554-303-21	SWITCH, TACTILE (1)			
S702	1-554-303-21	SWITCH, TACTILE (2)			
S703	1-554-303-21	SWITCH, TACTILE (3)			
S704	1-554-303-21	SWITCH, TACTILE (4)			
S705	1-554-303-21	SWITCH, TACTILE (5)			
S706	1-554-303-21	SWITCH, TACTILE (6)			
S707	1-554-303-21	SWITCH, TACTILE (7)			

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

CONTROL SWITCH TUNER

Ref. No.	Part No.	Description			Remark
S708	1-554-303-21	SWITCH, TACTILE (8)			
S709	1-554-303-21	SWITCH, TACTILE (9)			
S710	1-554-303-21	SWITCH, TACTILE (0)			
S711	1-554-303-21	SWITCH, TACTILE (TUNE MODE)			
S712	1-554-303-21	SWITCH, TACTILE (MUTE/MODE)			
S713	1-554-303-21	SWITCH, TACTILE (MEMORY SCAN)			
S714	1-554-303-21	SWITCH, TACTILE (MEMORY)			
S715	1-554-303-21	SWITCH, TACTILE (SHIFT)			
S716	1-554-303-21	SWITCH, TACTILE (BAND)			
S717	1-466-513-11	ENCODER, ROTARY (TUNING)			
**********					
* A-4345-364-A		TUNER BOARD, COMPLETE (AEP, UK)			
		**********			
* A-4345-366-A		TUNER BOARD, COMPLETE (GERMANY, IT)			
		**********			
* 4-924-988-11		PLATE (ST), GROUND			
		< CAPACITOR >			
C1	1-162-294-31	CERAMIC CHIP	1000PF	20% 25V	
C2	1-124-477-11	ELECT	47uF	20% 25V	
C3	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C4	1-162-294-31	CERAMIC CHIP	1000PF	20% 25V	
C5	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C6	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C7	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C8	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C9	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C10	1-162-516-11	CERAMIC CHIP	100PF	10% 50V	
C11	1-101-005-00	CERAMIC	22000PF	50V	
C21	1-101-006-00	CERAMIC	0.047uF	50V	
C22	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C23	1-124-477-11	ELECT	47uF	20% 25V	
C24	1-123-382-00	ELECT	3.3uF	20% 100V	
C25	1-163-063-00	CERAMIC MELF	22000PF	25V	
C26	1-163-019-00	CERAMIC CHIP	6800PF	20% 12V	
C27	1-163-007-11	CERAMIC CHIP	680PF	20% 50V	
C28	1-124-903-11	ELECT	1uF	20% 50V	
C29	1-162-516-11	CERAMIC CHIP	100PF	10% 50V	
C30	1-124-903-11	ELECT	1uF	20% 50V	
C31	1-124-902-00	ELECT	0.47uF	20% 50V	
C32	1-124-463-00	ELECT	0.1uF	20% 50V	
C33	1-130-481-00	MYLAR	0.0068uF	5% 50V	
C34	1-123-382-00	ELECT	3.3uF	20% 100V	
C35	1-130-481-00	MYLAR	0.0068uF	5% 50V	
C36	1-123-382-00	ELECT	3.3uF	20% 100V	
C37	1-124-907-11	ELECT	10uF	20% 50V	
C38	1-124-907-11	ELECT	10uF	20% 50V	

Ref. No.	Part No.	Description			Remark
C39	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C40	1-124-463-00	ELECT	0.1uF	20% 50V	
C41	1-124-927-11	ELECT	4.7uF	20% 100V	
C42	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C43	1-126-176-11	ELECT	220uF	20% 10V	
C44	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C45	1-123-382-00	ELECT	3.3uF	20% 100V	
C46	1-161-375-00	CERAMIC CHIP	2200PF	20% 25V	
C47	1-163-017-00	CERAMIC CHIP	4700PF	25V	
C48	1-123-382-00	ELECT	3.3uF	20% 100V	
C49	1-161-375-00	CERAMIC CHIP	2200PF	20% 25V	
C50	1-163-017-00	CERAMIC CHIP	4700PF	25V	
C51	1-124-477-11	ELECT	47uF	20% 25V	
C52	1-124-252-00	ELECT	0.33uF	20% 50V	
C53	1-163-105-00	CERAMIC	33PF	5% 50V	
C54	1-101-005-00	CERAMIC	22000PF	50V	
C61	1-163-063-00	CERAMIC MELF	22000PF	25V	
C62	1-163-063-00	CERAMIC MELF	22000PF	25V	
C63	1-163-063-00	CERAMIC MELF	22000PF	25V	
C64	1-163-063-00	CERAMIC MELF	22000PF	25V	
C65	1-163-063-00	CERAMIC MELF	22000PF	25V	
C66	1-163-063-00	CERAMIC MELF	22000PF	25V	
C67	1-102-120-00	CERAMIC	0.0018uF	10% 50V	
C68	1-163-011-11	CERAMIC CHIP	1500PF	20% 25V	
C69	1-163-063-00	CERAMIC MELF	22000PF	25V	
C70	1-163-063-00	CERAMIC MELF	22000PF	25V	
C71	1-163-063-00	CERAMIC MELF	22000PF	25V	
C72	1-163-063-00	CERAMIC MELF	22000PF	25V	
C73	1-163-063-00	CERAMIC MELF	22000PF	25V	
C81	1-102-961-00	CERAMIC	27PF	5% 50V	
C82	1-102-961-00	CERAMIC	27PF	5% 50V	
C83	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C84	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C85	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C86	1-124-477-11	ELECT	47uF	20% 25V	
C87	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C88	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C101	1-124-925-11	ELECT	2.2uF	20% 100V	
C102	1-124-463-00	ELECT	0.1uF	20% 50V	
C103	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C104	1-163-059-00	CERAMIC MELF	0.01uF	20% 16V	
C105	1-124-477-11	ELECT	47uF	20% 25V	
C106	1-136-173-00	FILM	0.47uF	5% 50V	
C107	1-124-463-00	ELECT	0.1uF	20% 50V	
C108	1-163-063-00	CERAMIC MELF	22000PF	25V	
C109	1-102-963-00	CERAMIC	33PF	5% 50V	

TUNER

Ref. No.	Part No.	Description	Remark
		< FILTER >	
CF1	1-567-389-11	FILTER, CERAMIC	
CF2	1-567-389-11	FILTER, CERAMIC	
CF3	1-567-389-11	FILTER, CERAMIC	
CF21	1-577-075-11	OSCILLATOR, CERAMIC	
CFT21	1-404-853-11	TRANSFORMER, IF (CERAMIC FILTER)	
		< CONNECTOR >	
CNJ1	* 1-564-666-11	PIN, CONNECTOR 10P	
CNJ2	* 1-564-341-11	PIN, CONNECTOR 7P	
CNJ3	* 1-568-313-11	SOCKET, CONNECTO 9P	
CNJ4	1-568-269-11	SOCKET, CONNECTOR 3P	
		< DIODE >	
D21	8-719-912-20	DIODE 1SS120	
D22	8-719-912-20	DIODE 1SS120	
D23	8-719-912-20	DIODE 1SS120	
D24	8-719-912-20	DIODE 1SS120	
D61	8-719-912-20	DIODE 1SS120	
		< FRONT END >	
FE1	1-463-857-11	FRONT END, FM (GERMAN, IT)	
FE1	1-463-862-21	FRONT END, FM (AEP, UK)	
		< ENCAPSULATED COMPONENTFRONT >	
FE61	1-236-462-11	ENCAPSULATED COMPONENT	
FE62	1-236-463-11	ENCAPSULATED COMPONENT	
		< IC >	
IC21	8-759-821-45	IC LA1851N	
IC81	8-759-820-91	IC LC7218	
		< COIL >	
L1	1-410-645-31	INDUCTOR 100uH	
L2	1-410-645-31	INDUCTOR 100uH	
L21	1-407-500-00	INDUCTOR 4.7mH	
L61	1-410-525-11	INDUCTOR 220uH	
		< FILTER >	
LPF21	1-235-164-00	FILTER, LOW PASS	
LPF22	1-235-164-00	FILTER, LOW PASS	
		< TRANSISTOR >	
Q1	8-729-230-XX	TRANSISTOR 2SC2669OY	
Q2	8-729-230-XX	TRANSISTOR 2SC2669OY	
Q3	8-729-230-XX	TRANSISTOR 2SC2669OY	
Q4	8-729-230-XX	TRANSISTOR 2SC2669OY	
Q21	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q22	8-729-119-78	TRANSISTOR 2SC2785-HFE	

Ref. No.	Part No.	Description			Remark
Q23	8-729-900-61	TRANSISTOR	DTA114ES		
Q24	8-729-900-80	TRANSISTOR	DTC114ES		
Q26	8-729-900-80	TRANSISTOR	DTC114ES		
Q27	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q28	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q61	8-729-900-80	TRANSISTOR	DTC114ES		
Q62	8-729-900-80	TRANSISTOR	DTC114ES		
Q63	8-729-900-80	TRANSISTOR	DTC114ES		
Q64	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q65	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q66	8-729-900-80	TRANSISTOR	DTC114ES		
Q81	8-729-900-61	TRANSISTOR	DTA114ES		
Q82	8-729-900-80	TRANSISTOR	DTC114ES		
Q83	8-729-202-67	TRANSISTOR	2SK246GR3		
Q84	8-729-201-84	TRANSISTOR	2SC3112B		
Q85	8-729-202-67	TRANSISTOR	2SK246GR3		
Q86	8-729-201-84	TRANSISTOR	2SC3112B		
		< RESISTOR >			
R1	⚠1-249-397-11	CARBON	22	5% 1/4W	(GERMAN, IT)
R1	⚠1-249-401-11	CARBON	47	5% 1/4W	(AEP, UK)
R3	1-249-329-11	CARBON MELF	330	5% 1/8W	
R4	1-249-329-11	CARBON MELF	330	5% 1/8W	
R5	1-249-329-11	CARBON MELF	330	5% 1/8W	
R6	1-249-350-11	CARBON MELF	18K	5% 1/8W	
R7	1-249-329-11	CARBON MELF	330	5% 1/8W	
R8	1-249-332-11	CARBON MELF	560	5% 1/8W	
R9	1-249-352-11	CARBON MELF	27K	5% 1/8W	
R10	1-249-329-11	CARBON MELF	330	5% 1/8W	
R11	1-249-350-11	CARBON MELF	18K	5% 1/8W	
R12	1-249-329-11	CARBON MELF	330	5% 1/8W	
R13	1-219-334-11	CARBON MELF	820	5% 1/8W	
R14	1-249-352-11	CARBON MELF	27K	5% 1/8W	
R15	1-249-347-11	CARBON MELF	10K	5% 1/8W	
R16	1-249-343-11	CARBON MELF	4.7K	5% 1/8W	
R21	⚠1-249-404-00	CARBON	82	5% 1/4W	
R22	1-249-433-11	CARBON	22K	5% 1/4W	
R23	1-249-335-11	CARBON MELF	1K	5% 1/8W	
R24	1-249-353-11	CARBON MELF	33K	5% 1/8W	
R25	1-249-346-11	CARBON MELF	8.2K	5% 1/8W	
R26	1-249-340-11	CARBON MELF	2.7K	5% 1/8W	
R27	1-249-432-11	CARBON	18K	5% 1/4W	
R28	1-249-423-11	CARBON	3.3K	5% 1/4W	
R29	1-249-347-11	CARBON MELF	10K	5% 1/8W	
R31	1-249-331-11	CARBON MELF	470	5% 1/8W	
R32	1-249-347-11	CARBON MELF	10K	5% 1/8W	
R33	1-249-347-11	CARBON MELF	10K	5% 1/8W	
R34	1-249-425-11	CARBON	4.7K	5% 1/4W	
R35	1-249-355-11	CARBON MELF	47K	5% 1/8W	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

TUNER

Ref. No.	Part No.	Description			Remark
R37	1-249-359-11	CARBON MELF	100K	5% 1/8W	
R38	1-249-363-11	CARBON MELF	220K	5% 1/8W	
R39	1-249-339-11	CARBON MELF	2.2K	5% 1/8W	
R40	1-249-338-11	CARBON MELF	1.8K	5% 1/8W	
R41	1-249-344-11	CARBON MELF	5.6K	5% 1/8W	
R42	1-249-359-11	CARBON MELF	100K	5% 1/8W	
R43	1-249-363-11	CARBON MELF	220K	5% 1/8W	
R44	1-249-339-11	CARBON MELF	2.2K	5% 1/8W	
R45	1-249-338-11	CARBON MELF	1.8K	5% 1/8W	
R46	1-249-344-11	CARBON MELF	5.6K	5% 1/8W	
R47	⚠1-249-409-11	CARBON	220	5% 1/4W	
R48	1-249-359-11	CARBON MELF	100K	5% 1/8W	
R49	1-249-359-11	CARBON MELF	100K	5% 1/8W	
R61	1-249-359-11	CARBON MELF	100K	5% 1/8W	
R62	1-249-355-11	CARBON MELF	47K	5% 1/8W	
R64	1-249-351-11	CARBON MELF	22K	5% 1/8W	
R65	1-249-355-11	CARBON MELF	47K	5% 1/8W	
R66	1-215-493-00	CARBON MELF	1M	5% 1/5W	
R67	1-249-359-11	CARBON MELF	100K	5% 1/8W	
R68	1-249-352-11	CARBON MELF	27K	5% 1/8W	
R69	1-249-351-11	CARBON MELF	22K	5% 1/8W	
R70	1-249-331-11	CARBON MELF	470	5% 1/8W	
R71	1-249-339-11	CARBON MELF	2.2K	5% 1/8W	
R72	1-249-351-11	CARBON MELF	22K	5% 1/8W	
R73	1-249-347-11	CARBON MELF	10K	5% 1/8W	
R74	1-249-347-11	CARBON MELF	10K	5% 1/8W	
R75	1-249-343-11	CARBON MELF	4.7K	5% 1/8W	
R81	1-249-335-11	CARBON MELF	1K	5% 1/8W	
R82	1-249-335-11	CARBON MELF	1K	5% 1/8W	
R83	1-249-335-11	CARBON MELF	1K	5% 1/8W	
R84	1-249-335-11	CARBON MELF	1K	5% 1/8W	
R85	1-249-347-11	CARBON MELF	10K	5% 1/8W	
R86	1-249-335-11	CARBON MELF	1K	5% 1/8W	
R87	1-249-347-11	CARBON MELF	10K	5% 1/8W	
R88	1-249-343-11	CARBON MELF	4.7K	5% 1/8W	
R89	1-249-335-11	CARBON MELF	1K	5% 1/8W	
R90	1-249-343-11	CARBON MELF	4.7K	5% 1/8W	
R91	1-249-335-11	CARBON MELF	1K	5% 1/8W	
R92	⚠1-249-401-11	CARBON	47	5% 1/4W	
R101	1-249-341-11	CARBON MELF	3.3K	5% 1/8W	
R102	1-249-332-11	CARBON MELF	560	5% 1/8W	
R103	1-249-335-11	CARBON MELF	1K	5% 1/8W	
R104	1-249-328-11	CARBON MELF	270	5% 1/8W	
R105	1-249-343-11	CARBON MELF	4.7K	5% 1/8W	
R106	1-249-339-11	CARBON MELF	2.2K	5% 1/8W	
R107	1-249-343-11	CARBON MELF	4.7K	5% 1/8W	
R108	1-249-323-11	CARBON MELF	100	5% 1/8W	
R109	1-249-343-11	CARBON MELF	4.7K	5% 1/8W	
R110	⚠1-249-405-11	CARBON	100	5% 1/4W	

Ref. No.	Part No.	Description			Remark
R111	1-249-341-11	CARBON MELF	3.3K	5% 1/8W	
R112	1-249-332-11	CARBON MELF	560	5% 1/8W	
R113	1-249-335-11	CARBON MELF	1K	5% 1/8W	
R114	1-249-328-11	CARBON MELF	270	5% 1/8W	
R115	1-249-351-11	CARBON MELF	22K	5% 1/8W	
R116	1-249-339-11	CARBON MELF	2.2K	5% 1/8W	
R117	1-249-343-11	CARBON MELF	4.7K	5% 1/8W	
R118	1-249-323-11	CARBON MELF	100	5% 1/8W	
R120	1-249-335-11	CARBON	1K	5% 1/4W	(AEP, UK)
		< VARIABLE RESISTOR >			
RV21	1-238-015-11	RES, ADJ, CARBON	4.7K		(SEPARETION)
RV22	1-238-017-11	RES, ADJ, CARBON	22K		(AM TUNED)
RV23	1-238-021-11	RES, ADJ, CARBON	220K		(LEVEL)
RV24	1-238-019-11	RES, ADJ, CARBON	47K		(STEREO INDICATION)
		< TRANSFORMER >			
T21	1-404-807-11	TRANSFORMER, DISCRIMINATOR (NULL)			
T23	1-236-465-11	ENCAPSULATED COMPONENT			
		< TERMINAL BOARD >			
TM1	* 1-537-138-31	TERMINAL BOARD (ANT)			
		< PIN >			
TP1	* 1-560-060-00	PIN, CONNECTOR 2P			
		< VIBRATOR >			
XT81	1-577-126-11	VIBRATOR, CRYSTAL (7.2MHz)			

****

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
CP501	⚠1-575-651-11	CORD, POWER (AEP, IT, GERMANY)	
CP501	⚠1-575-652-11	CORD, POWER (UK)	
S901	⚠1-554-920-21	SWITCH, POWER (POWER)	

****

ACCESSORY & PACKING MATERIAL
****

	1-501-369-11	ANTENNA
	1-501-374-11	ANTENNA, LOOP (EXCEPT GERMANY)
	1-558-233-11	CORD (WITH CONNECTOR) (SIRCS) 4P
	1-558-271-11	CORD, CONNECTION
	1-559-533-11	CORD, CONNECTION
*	3-704-343-01	SHEET (STANDARD), PROTECTION
	3-753-264-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH ITALIAN, SPANISH) (AEP, IT, UK)
	3-753-264-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, PORTUGUESE) (AEP, GERMANY)
*	4-930-835-01	CUSHION
*	4-944-049-01	INDIVIDUAL CARTON

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

9-956-402-11

Sony Corporation
Audio Group

English
91D0258-1
Printed in Japan
©1991.4
Published by Customer Relations and Service Group